



NATIONAL WEATHER SERVICE

Western Region Notes

OCTOBER 7, 2004

REGIONAL DIRECTOR'S OFFICE



2004 LIFT Team Takes Off: The 2004 Leadership and Innovation For Tomorrow (LIFT) class kicked off their training with a week-long meeting in Portland on September 19-24. Fifteen class members from around the region attended, along with a dozen MICs and senior WRH staff who served as LIFT facilitators. Class sessions were presented by the facilitators, Norma Barr (Meyers-Briggs evaluations), Gary Grice (retired from SRH), Norman Bowles (retired head of the FAA Logistics Center, discussing challenges facing the NWS), and faculty from Portland State University. Each session promoted lively discussions among the class members on topics such as servant

leadership, innovation, values, communication, and mentoring. The class also saw leadership in action during an informative visit with members of Hands On Portland/Washington County, an organization that organizes volunteer efforts. The group was especially touched by a visit to one of their local projects, a shelter for homeless families.

At one point during the week, the class broke into groups and quickly created vision statements during an exercise. They combined their work over the next week to produce the first LIFT vision statement:

The 2004 LIFT class will strive to create a culture that encourages and benefits from enhanced leadership skills at all levels. We will serve the National Weather Service by encouraging teamwork while continuously developing character and integrity among ourselves and others. We will LIFT the Western Region to new heights in open communication and innovation, leading to unprecedented high standards in customer service.

At the end of the week, each class member was paired with a mentor to begin the next phase of LIFT training. They will complete projects and continue with various leadership training over the next year, before serving as facilitators and mentors to the next LIFT class. When the class ended, both facilitators and class members agreed that the 2004 LIFT was one of the best experiences they'd had during their NWS careers.



Photo of the Week:

WR Regional Director Vickie Nadolski and WFO Glasgow MIC Julie Adolphson went back in time when visiting the Emergency Operations Center (EOC) for Richland County, Montana. The EOC was built in the old civil defense days and included a shower that allowed people to get cleaned off from any nuclear fallout before going into the fallout shelter. The shower now serves as more of an amusement and is where new visitors are unsuspectingly lead into the EOC.

METEOROLOGICAL SERVICES DIVISION

Statement of the Week: This week's Statement of the Week is an Ashfall Advisory from WFO Portland, associated with the recent Volcanic emissions from Mt. St. Helens. WFO Portland is the lead WFO to coordinate with other affected WFOs when other CWFAs are affected. Thanks to WFO Portland for taking the lead!

10/4/2004 11:20:07 AM - NPWPQR
WWUS76 KPQR 041717
NPWPQR

URGENT - WEATHER MESSAGE
NATIONAL WEATHER SERVICE PORTLAND OR
1017 AM PDT MON OCT 4 2004

WAZ019-042009-
SOUTH WASHINGTON CASCADES-
INCLUDING THE CITIES OF...
MOUNT ST. HELENS AND COLDWATER RIDGE VISITORS CENTER
1017 AM PDT MON OCT 4 2004

...ASHFALL ADVISORY HAS BEEN ISSUED AND IS IN EFFECT UNTIL 1 PM PDT
THIS AFTERNOON FOR THE SOUTH WASHINGTON CASCADES...

AN ASHFALL ADVISORY HAS BEEN ISSUED FOR AREAS ADJACENT TO EAST AND SOUTHEAST OF MOUNT ST. HELENS UNTIL 1 PM. AN ASH AND STEAM EMISSION FROM MOUNT ST. HELENS BEGAN AROUND 940 AM THIS MORNING. USGS GEOLOGISTS INDICATED THAT THE EMISSION DID CONTAIN SOME ASH EXTENDING ABOVE THE CRATER RIM. WINDS ALOFT AT THE HEIGHT OF THE PLUME ARE AROUND 15 MPH AND WOULD CARRY ANY ASH OFF TO THE EAST AND SOUTHEAST THROUGH SKAMANIA COUNTY. PILOTS HAVE REPORTED THE PLUME HAS REACHED AROUND 10000 OR 11000 FEET ABOVE MEAN SEA LEVEL SO FAR. LIGHT AMOUNTS OF ASH MAY PRECIPITATE OUT OVER SKAMANIA COUNTY AROUND MOUNT ST. HELENS AND TO THE SOUTHEAST. USE CAUTION IN VICINITY OF MOUNT ST. HELENS.

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TOLLESON
WWWW

TAF of the Week: WFO Seattle forecaster Danny Mercer produced an excellent forecast for Sea-Tac airport (KSEA) Monday afternoon, Oct 4, for poor weather overnight and Tuesday morning. His timing on the development of dense fog 1/4SM was excellent. Danny held off until local midnight when there was already 1/2SM in fog occurring at Tacoma (KTIW) when he put the TAF out. That was a 7 hour forecast! Forecasting as low as 1/4SM for 9 hours for the hub airport for the Pacific Northwest also took courage and conviction since those conditions reduce the airport capacity to handle traffic.

KSEA 042328Z 050024 VRB03KT P6SM SKC
 TEMPO 0004 4SM HZ BR SCT001
 FM0400 00000KT 4SM BR SCT003
 TEMPO 0507 1SM BR BKN001
 FM0700 00000KT 1/4SM FG VV001
 FM1600 16005KT 3SM BR BKN003
 FM1700 18007KT P6SM SCT250
 FM2200 20010KT P6SM BKN120

Support to Mt St Helens Eruption: At 12:05 p.m. PDT, October 1, Mt. St. Helens erupted. Initial reports were that a plume of steam and ash had been ejected into the atmosphere. Pilot reports indicated the plume extended to an altitude of 16,000 ft AGL. At 2:00 p.m. PDT, the activity on Mt St Helens dissipated. WFO Portland provided outstanding support to this event. The WFO issued a Volcanic Ash Advisory shortly after the eruption and had issued daily Special Weather Statements (SPS) on September 29 and 30 and October 1. The SPS's were specifically for Mt. St. Helens and contained winds aloft forecasts. These forecasts were requested by customers (Emergency Management and USGS).

NOAA's Volcanic Ash Advisory Center issued Volcanic Ash statements on September 29 and September 30, which discussed the increased seismic activity on Mt. St. Helens as reported by the USGS Cascade Volcano Observatory in Vancouver, WA.

The MIC, WCM, and SOO participated in a number conference calls and briefed elected officials (Senators, Congressman, State Representatives) and other state and federal agencies on the weather situation, NWS capabilities, interaction with other agencies, and products the WFO would issue in the event of an eruption. During the three days prior to the first eruption the staff provided briefings to media, emergency managers, and the USGS. WFO Portland provided a link on their homepage for the VAFTAD model output that is available from NOAA's Air Resource Laboratory website (<http://www.arl.noaa.gov/ready/vaftadmenu.html>). This information was provided to area Emergency Managers via email and telephone.

Washington State Emergency Management and the USFS stated the Special Weather Statements were very useful. The USGS stated they were using the data in their modeling activities.

Aviation Program: A Regional (Pacific/Alaska/Western Region) Aviation Workshop was held in Seattle, Washington on September 14-15. Workshop attendees included forecasters from WFOs and CWSUs and NWS meteorologists from the Aviation Weather Center in Kansas City, the FAA Academy in Oklahoma City, the Environmental Modeling Center, and Aviation Services Branch in Silver Springs, Maryland. Aviation customer groups were represented by Alaska Airlines Dispatch in Seattle, Washington; Seattle Automated Flight Service Station; National Center of Atmospheric Research in Boulder, Colorado; and Continental Airlines in Micronesia.

The main focus of the Workshop was understanding customer needs, in combination with conducting aviation training for focal points by presenting various aviation meteorology research and programs. Forty students attended the Workshop from Western, Pacific, and Alaska regions. Western Region forecasters which gave presentations were: Walt Rogers (CWSU Palmdale), Todd Lericos (WFO Spokane), Larry Burch (CWSU Salt Lake City), and Wendy Sellers (WFO Monterey). Furthermore, Allen Kam (WFO Seattle) led a very informative tour of the Alaska Airlines Dispatch Office.

MSD would like to thank Allen Kam and John Werth (CWSU Auburn) for helping with the Aviation Workshop.



Great Divide Weather Workshop: The Eighth Annual Great Divide Weather Workshop was hosted by WFO Billings on September 8-10, 2004. The Workshop featured presentations relating to forecasting challenges in the Intermountain West, Drought Information and Research, Weather Forecasting Model Developments and Improvements, and several other topics. Invited speakers included Dr. Michael J. Hayes of the National Drought Mitigation Center in Lincoln, Nebraska, and Dr. Julio

Betancourt from the Desert Laboratory (U.S. Geological Survey) in Tucson, Arizona.

Presentations from the Great Divide Workshop are now available for download by clicking on the presentation of interest, from the Workshop Agenda, located on the WFO Billings Homepage (under "local news").



WFO Elko Gives Weather Training to 4th Graders: Ian Morrison, WFO Elko General Forecaster, gave two presentations to 4th grade classes in McGill, NV. This was an interactive session where students demonstrated their weather instruments with each student asking one weather question. Ian conducted several experiments to help answer student's questions, including the classic "tornado-

in-a-bottle” experiment. The teacher was interested in establishing a working relationship with the NWS, and invited WFO Elko staff back for more student training and interaction in the future.

WFO Great Falls Supports “Broken Arrow” Exercise in Montana: “Exercise ...Exercise...this is just an exercise...” At 10:44 am MDT, Monday, September 13, the Great Falls, Montana Weather Forecast Office received a message from the Cascade County Sheriff’s dispatch center simulating a radiological release east of Great Falls. This message was the culmination of over a year’s worth of planning with scores of local, state and federal organizations.

The exercise, named “Diligent Warrior ’04,” involved a mock traffic accident along a busy state highway just outside Great Falls. In the scenario, the accident damages a nuclear asset leading to a concern over possible radiological release. The Sheriff’s dispatch requested EAS activation through WFO Great Falls, informing local residents of the accident, the threat, and what actions to take.

WFO Medford Participates in Preparedness Fair: On Saturday, September 11, WFO Medford WCM Jim Reynolds hosted a NOAA booth at a preparedness fair in Grants Pass, Oregon, for what is anticipated to become a yearly event. Participants included local county emergency management, the Red Cross, the U.S. Forest Service, and various first responder agencies. NOAA Weather Radio and the local NWR broadcast were strongly promoted during the event.



WFO Pocatello WCM Vern Preston provides valuable information on NWS Digital Services and winter forecast concerns at the Eastern Idaho State Fair.

WFO Pocatello Participates in Eastern Idaho State Fair: WFO Pocatello partnered with Bingham County Emergency Services to sponsor a booth at the 2004 Eastern Idaho State Fair in Blackfoot, Idaho. Staff members Paul Angel, Greg Kaiser, Jack Messick, Jim Meyer, Vernon Preston, Bill Snyder, Bryan Tilly, and Rick Winther worked the specially designed preparedness booth.

Fair attendance this year was over 130,000, and nearly 40,000 people viewed the NWS booth over a four day period. Items drawing the most attention included “preparedness wheels” (commonly known as “wheels of disaster”), the new “Owlie Skywarn” game and coloring book, NOAA cloud charts, and WFO

Pocatello’s local credit card-sized wind chill chart and digital services brochure.

The staff handled a wide variety of questions on subjects ranging from the lingering drought to hurricanes in Florida. A special item of note: compared to last year, there was a sharp increase noticed in the number of people who were aware of WFO Pocatello’s web page. As a result, Pocatello’s ITO and webmaster Bill Snyder received some very valuable (and direct) feedback.

WFO Seattle Teams Up to Support DeafNation 2004: WFO Seattle WCM Ted Buehner staffed a jointly operated booth with the Seattle Center for the Deaf and Hard of Hearing at the Seattle edition of "DeafNation 2004." The event was held at the Seattle Center Exhibition Hall on September 18. For the deaf and hard of hearing community, "DeafNation" is a major event. Over 2,200 people from around the Pacific Northwest attended. The booth emphasized NOAA Weather Radio (NWR) as a warning notification tool and also provided information about 911 / TTY.

The Director of the Center for the Deaf and Hard of Hearing, Donna Platt (who is deaf herself), provided an interpreter to assist in communicating with deaf customers. The event improved awareness of NWR capabilities as a warning tool, especially since many of the devices used for other purposes (e.g. for incoming phone calls and door bells) can also be used as an attachment to many available weather radios, some of which were on display at the booth.



NOAA Weather Radio Installed at Coeur d'Alene Lake:

A new NOAA Weather Radio receiver was recently installed at the Lake Coeur d'Alene Boat launch in northern Idaho. A single button activates the radio, which is located on a tall wood post near the restroom. The radio then plays local weather information for about six minutes. The receiver is similar to some other NOAA Weather Radios installed at highway rest stops around the country. The new service attracted local newspaper and

television attention, which both produced stories related to the event.



HMT Mark Pellerito gives a weather presentation at the Outdoor Classroom.

WFO Glasgow Participates in an Outdoor Classroom:

WFO Glasgow recently participated in an "Outdoor Classroom" that included 275 8th grade students. HMT Mark Pellerito spent two days in the "middle of nowhere" (or 20 miles north of Sidney, MT) with the kids. They students had six different stations they went to and were given half hour presentations at each. Besides the weather, some of the topics included were: archaeology/paleontology, fish and wildlife, and plant identification.

WFO Monterey Participates in Boat Show:

WFO Monterey participated in the Northern California Fall Boat Show in Oakland California on September 11-12 and September 18-19. The booth attracted more than 200 people.



Dave Soroka, pictured at left, interacts with a customer at the NWS booth.

HYDROLOGY AND CLIMATE SERVICES DIVISION



(L to R) Bill Reed describes hydraulic characteristics of the flow in Show Low Creek to Tom Clemmons during the trek through drought stricken northern Arizona.

Joint WFO-RFC Hydrology Visit: During the week of September 15, Bill Reed (Senior Hydrologist, CBRFC), Tom Zickus (Senior Service Hydrologist, Phoenix) and Tom Clemmons (Hydrology Focal Point, Flagstaff) accessed flood hazard areas throughout central and northern Arizona.

The earthen dam for River Reservoir in Apache County was the greatest concern. Last season, this structure was on the verge of failing and downstream. Areas were evacuated and closed off for many weeks. WFO Flagstaff has been closely monitoring the situation, and this past summer ADWR Dam Safety engineers have made temporary repairs the structure.

The three also met with officials of the USGS in Flagstaff and traveled with county engineers from Navajo and Gila counties to obtain firsthand knowledge about potential flood problems, recently installed flood structures, and improvements in flood operations. A new proposed flood forecast point was surveyed for Holbrook on the Little Colorado River.

Reed and Zickus also inspected the newly burned areas of the Willow fire in Gila County. This area has already caused water problems for the lower canyon residents, and flash flooding for the remote areas near Wickenburg.

SCIENTIFIC SERVICES DIVISION

PD&T and Intern Progress Reports Due on October 15, 2004: The biannual Western Region PD&T and Intern Progress Reports are due from each WFO and RFC on October 15, 2004. The WR supplement on this states these are normally due on September 15, but since many SOOs are attending the AWOC facilitator course in September, the due date has been pushed back to October 15.

NEW Forecast Pages: This is the new two step page based on the IFPS grids.

First forecast page: Icons come from the grids (a point defined in each zone by the office web master), the words from the office ZFP (which comes from your GFE). We do this, since selecting an exact point from the welcome page map is very difficult. Both forecast pages now use the NWS standardized look.

Second forecast page: Click on the small map with terrain. A point forecast is displayed where both the words and icons come from the grids. Please note the forecast differences around mountains or near the ocean, and note elevation and forecast difference. Since the page is new, we also expect to make a number of minor changes to evolve the page.

Bookmarks: During this change, users will have to re-bookmark pages that are deeply embedded within the Forecast Office web site (example: a data page that is found through using the left hand menu). To re-establish your bookmark, simply access the Forecast Office main page, using the left hand menu, find the page you had previously bookmarked and re-save this new bookmark.

URL Changes: The following URLs will now link you to the office welcome page. The current link to the office welcome page is: <http://www.wrh.noaa.gov/pocatello>. This bookmark will continue to work. The new links to the office welcome page will be: <http://www.wrh.noaa.gov/pih> or weather.gov/pocatello.

Extra Radiosonde Release to Capture Remnants of Hurricane Javier Movement into southwestern United States: While the core activities of North America Monsoon Experiment (NAME) were completed in August, there was one science objective that was left undone, capture the surge of moisture into Baja, Mexico and the Southwestern United States from a dying hurricane. Hurricane Javier provided this opportunity during the weekend of September 17-20.

Hurricane Javier was a category 4 hurricane in the western Pacific moving northward toward the U.S. As it moved over colder waters, the hurricane rapidly diminished in intensity, but the residual moisture surged northward into the southwestern U.S ahead of an approach trough. Using radiosondes that were left over from the original NAME experiment, six hourly radiosonde were launched by the western Mexican and Southwestern U.S Forecast Offices. The last and final NAME special operations (#10) launched six hourly radiosondes from 00Z Saturday, September 18, through 00Z Monday, September 20. The surge of moisture did occur. Some of the forecasters noted an improvement in the models forecast of the moisture surge, which is always a challenge. Flash Flooding from thunderstorms did occur over Arizona, southern eastern Utah, Southwestern Colorado, and New Mexico over the weekend. Erik Pytlak (SOO-Tucson) lead the coordination effort.

NAME was an joint project between the U.S and Mexican Governments and included many elements of NOAA, including CPC, NCEP, and the Forecast Offices in Western and Southern Region.

WES TA-Lites: The majority of the summer Weather Event Simulator (WES) TA-Lites have been posted to the Western Region Home page and may be found at: <http://www.wrh.noaa.gov> under On-Line Publications. You are encouraged to check these out to see what your regional counterparts are choosing for WES training exercises, and if they may be useful in your own office training.

2004 Intermountain Workshop: The Eleventh Annual Workshop on Weather Prediction in the Intermountain West will be held on **Thursday, November 4, 2004** at the University of Utah Huntsman Cancer Institute. A tentative schedule for the 2004 Intermountain Weather Workshop, is now available from the conference web page: <http://www.met.utah.edu/jimsteen/cirp/workshop2004/> or directly at: http://www.met.utah.edu/jimsteen/cirp/workshop2004/conference_program_04.html

The registration deadline is October 15. The theme of the workshop is “Impacts of Intermountain Anticyclones,” and priority will be given to abstracts related to valley and basin cold pools, fog, air pollution, the North American Monsoon, and drought. Abstracts related to other areas of Intermountain meteorology and weather prediction will also be given consideration. Presentations may be given orally or as a poster, with the number of oral presentation limited. There are no fees associated with the Workshop. The workshop is being hosted by the NOAA Cooperative Institute for Regional Prediction <http://www.met.utah.edu/jhorel/cirp>.

RPG 6 Build Deployment and Training: The RPG Build 6 deployment began on September 30. WDTB has prepared operator training to support this build. All Build 6 training materials are available on <http://www.wdtb.noaa.gov/modules/RPG6/index.html>.

Each site will receive a copy of the training document with the deployment kit. Additional copies can be downloaded and printed from this page. You will also find a training presentation on this page that is a streaming technology - no download required. In continuous playback, it will take just over 30 minutes to complete.

Major Changes at COMET: COMET has reworked their web site. You can find the new web site at <http://meted.ucar.edu/>.

A new COMET web module is available on the theory and use of ensemble prediction systems (EPSs): Ensemble Forecasting Explained. This module, a part of our series on Numerical Weather Prediction, will help forecasters develop an understanding of the basis for EPSs, the tools used to interpret their performance and output, and their use in the forecast process.

The module contains six sections: an Introduction, which briefly covers the background theory on which ensemble prediction is based; Generation, which describes how ensemble systems are constructed; Statistical Concepts, which gives a refresher on knowledge required for ensemble product interpretation; Summarizing Data, which describes common ensemble forecast products that consolidate the huge volumes of information provided by EPSs; Verification, which discusses how EPSs performance is assessed and documented; and finally, Case Applications, which provides links to a number of forecast cases illustrating the interpretation and use of EPSs in the forecast process.

In preparation for the winter season, there are four COMET training modules that are good candidates for local winter refresher training. Each of the modules takes approximately an hour to complete

The four modules are:

1. *Dynamics and Microphysics of Cool-Season Orographic Storms*: A good review of cloud physics and western U.S. mountain precipitation events (snow storms).
2. *Low-Level Coastal Jets*: A tutorial on low level jet theory and forecasting tips

along the west coast.

3. *Fog and Stratus Forecast Approaches*: A good review of fog formation basics. The training module may be especially useful for offices that deal with persistent winter-time fog events.
4. *Rip Currents: NWS Mission and Partnerships*: A brief explanation of where NWSH will be evolving the program.

Teletraining Sessions for October: The Virtual Institute for Satellite Integration Training (VISIT) and the Integrated Sensor Training Professional Development Series (ISTPDS) sessions for October are listed below. Offices can register for the teletraining sessions by sending email to: visit@comet.ucar.edu. The teletraining calendar is at: <http://www.cira.colostate.edu/ramm/visit/ecal.asp>.

The current sessions for October are:

- C Downscaled GFS with Eta Extension (DGEX): Its uses and limitations (Basic, Oct 1,4,5,6,12,13,14,15,21,26,27,28)
- C Modern Severe Weather Parameters (Basic, Oct 6,14,28)

The objectives of the new session "Downscaled GFS with Eta Extension (DGEX): Its uses and limitations" by Stephen Jascourt (UCAR/COMET/NWP Team) with support from the IFPS Science Steering Team are:

1. What is DGEX?
2. Why and how to use DGEX?
3. What fields are available?
4. Overall performance assessment

Case examples:

1. Major factors causing DGEX differences from GFS
2. Major factors affecting DGEX accuracy and what can be done to reduce big errors

All sessions can be reviewed in advance by following the instructions in the student guides available on the ISTPDS/VISIT page:

<http://www.cira.colostate.edu/ramm/visit/visithome.asp>

New Learning Management System (LMS) E-learning Library Access: All Western Region employees now have access to the NETg and Free Course libraries in the DOC/NOAA/NWS LMS. Access to the libraries may be found at: <http://e-learning.doc.gov/noaa/>. If you have difficulty signing onto the site, please contact your SOO or DOH for the correct initial log-in and password. Employees will have access to these libraries through May 31, 2005.

Advanced Warning Operations Course (AWOC): The dates for the "train the facilitator" portion of AWOC have been set. Each WFOs/RFCs has been assigned one slot for the SOO/DOH or radar focal point to attend the one week facilitator course at the WDTB in Norman OK. The final AWOC course date is Oct 13-14, 2004 (RFCs

only).

AWOC Course Description:

The Advanced Warning Operations Course (AWOC) will initially consist of two tracks — Core Track and Severe Weather Track. There is be a Winter Weather track added to the end of the course. Each track contains approximately 14 hours of training material (includes evaluation components). The course will be facilitated on site by an onsite facilitator (SOO, DOH, or locally appointed training officer). The AWOC will begin in October 2004 and will include a combination of distance learning technologies including teletraining, web-based training, computer-based training on CD-ROM, Weather Event Simulator (WES) simulations, and printed material. The course is designed to allow every NWS Forecaster (Meteorologist and Hydrologist) to participate. Each instructional component as described below will include a separate evaluation component that will be tracked by the AWOC on-site facilitator. Pre-test options will be available for many of the instructional components.

AWOC Core Track:

1. *Decision Making in a Warning Environment Brief Description:*
The content will focus on various aspects of decision making as it pertains to the operational warning environment. This will include the three levels of situation awareness and how they are accounted for in the warning process. In addition, the meaning and value of expertise, as well as strategies for acquiring it, will be presented.
Delivery Methods: Teletraining, printed materials, and web support materials
Approximate Completion Time: 4 hours
2. *Effective Office Warning Strategies Brief Description:*
The content will focus on putting together strategies which will allow the decision maker to make the best use of their skills and those of the warning team. This will include ways to manage workload and heighten communication. The benefits and challenges of coordination both within the office and with external partners will be illustrated.
Delivery Methods: Teletraining, printed materials, and support materials
Approximate Completion Time: 2.5 hours
3. *Data Quality Brief Description:*
Radar, satellite, radar/satellite integration, ground truth and VCP Explorer are some of the topics that will be covered in this block. Emphasis will be on the impacts of poor data quality, strengths and limitations of various sensors, and optimum utilization of the various sensors to improve/mitigate data quality issues.
Delivery Methods: CD and web module
Approximate Completion Time: 2.5 hours
4. *Societal Impacts and Public Perception Brief Description:*
This instructional component will explore the place of weather warnings in a sociological context, and identify elements of an effective warning.

Delivery Methods: web module

Approximate Completion Time: 2.5 hours

AWOC Severe Weather Track:

1. Conceptual Models for Origins and Evolutions of Convective Storms and Systems Brief Description:
Content will focus on recent (1994- present) research on conceptual models that describe important processes in convective storms or storm systems. Formation mechanisms and environmental parameters for supercell and squall line tornadoes, hail, high winds (wet and dry microbursts, bow echoes, derechos), and flash flooding (meteorological considerations) will be described.
Delivery Methods: web module
Approximate Completion Time: 2 hours
2. Mesoanalysis for the Warning Forecaster Brief Description:
This component will identify products and procedures for effective data analysis in completing short-term forecast job tasks (i.e., what a mesoanalyst should do in a severe weather warning methodology). Delivery Method: web module
Approximate Completion Time: 1.5 hours
3. Storm Interrogation Strategies Brief Description:
Topics in this section include methods to determine the qualitative strength of an updraft and its relation to most severe weather reports, techniques to determine the updraft location for sheared storms, and identifying characteristics of tornadoes, flash floods, hail, and damaging winds.
Delivery Method: web module
Approximate Completion Time: 2.5 hours
4. Application and Review of AWOC Severe Weather Track Brief Description:
This instructional component will use a case or two to review and illustrate the important considerations that a warning forecaster should apply in an effective warning methodology. This review will include components of threat assessment and storm interrogation strategies.
Delivery Methods: Teletraining and a printed student guide.
Approximate Completion Time: 1.5 hours
5. Simulations Brief Description:
Four simulations, complete with simulation guides, will be released with the AWOC. SOOs may choose to use these simulations as the simulations in the AWOC, or they may use them as a reference to develop their own local simulations for AWOC. The simulations in the AWOC can be used to fulfill the annual WES requirement of two simulations for the convective season.
Delivery Methods: Weather Event Simulator (WES) data with supporting simulation guides.
Approximate Completion Time: 5 hours (2.5 hours per simulation with 2 simulations)

SYSTEMS OPERATIONS DIVISION

ASOS visit in Reno: Joe Lachacz and Kevin Bolton visited three ASOS sites in WFO Reno's County Warning Area. The three ASOS sites were calibrated and two of the towers were painted during this ASOS visit.

Regional AWIPS status: As of October 6, five sites are running Operational Build 4 (OB4), and 14 sites are scheduled for OB4 install. Two sites have completed the XT Replacement, and 14 sites are scheduled.

New WEB Farm: We took on this difficult and significant project over a year ago as the need arose for us to provide flexible, scalable, and reliable Public Web Services in a secure manner. In January 2004, SSD and SOD, in conjunction with the Field Offices (WebMasters, ITOs, ...), laid out the vision for the New Web Farm and developed the approach we would take for the migration to the new farm. Through the Winter, Spring, and Summer Months, WebMasters worked to learn and utilize PHP, data transfer mechanisms, and learn the new WEB Architecture. There was a significant workload on the field in transitioning the old pages over to the new Web Farm. The Field performance in support of this huge project was nothing short of OUTSTANDING! The resources required to get us to where we are now had a huge impact on the field offices and on SSD and SOD. Thank you for all your comments, contributions, and especially for all your HARD WORK! It's official "We have a new Web Farm!"